

# STK-FY07-02

## Modular Scalable Effects Weapons



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# UAEO STK-FY07-02

## Modular Scalable Effect Weapon

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**Description.** EC1I will provide the Naval Expeditionary Force (NEF) operating in support of Asymmetric Warfare in the Urban and Dispersed Battlespace with the capability to employ a modular, scalable effects weapon for employment in both the urban and dispersed battlespace.

### Products:

- **Modular Scalable Effects Weapons Concept Development**
- **Modular Scalable Effects Weapons Indirect Fires Prototype**



# Capabilities Addressed by this EC

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- **Scalable Indirect Fire Support in Urban and Distributed Operations**
  - **Precise and Proportionate Variable Effects** Warhead for the Expeditionary Fire Support System
  - Transformation of organic weapons systems to achieve **both area and precision effects**
  - Indirect fire support can be employed in an urban environment with **reduced risk of fratricide and collateral damage**



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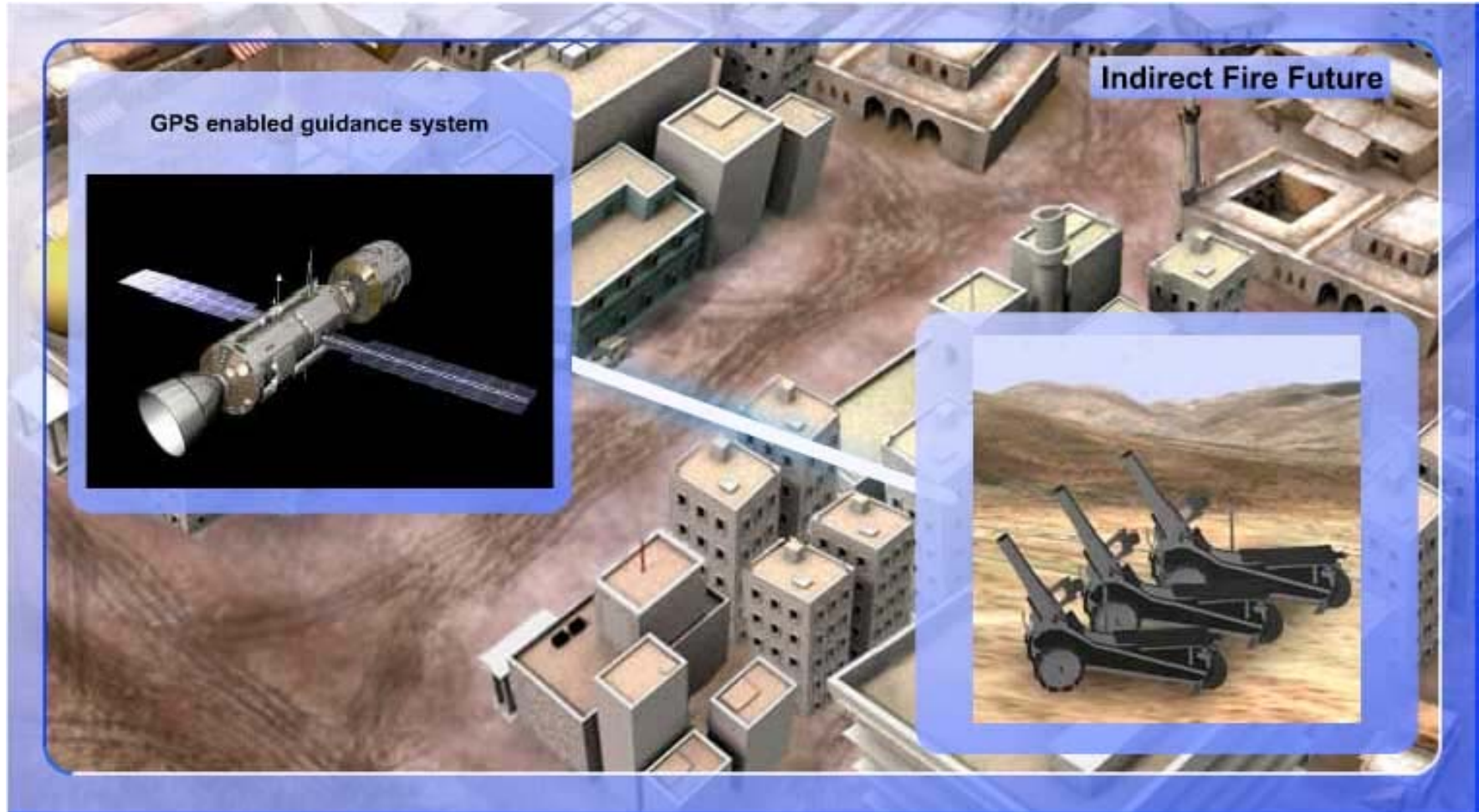




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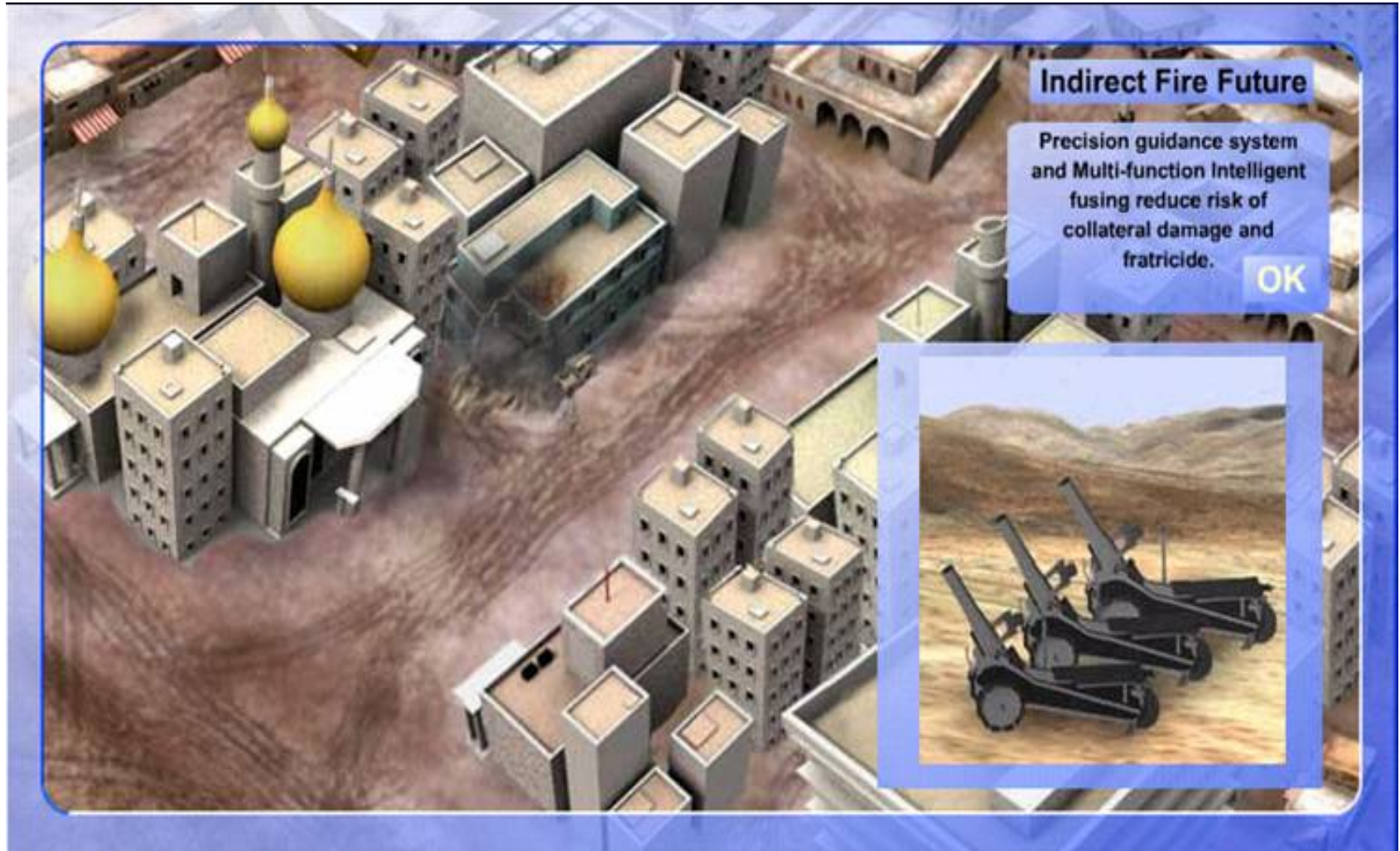




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# Product 1: MSEW Concept Development

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Product Description: This effort will conduct analyses and concept development of the modular scalable effects weapons employment in the urban environment.

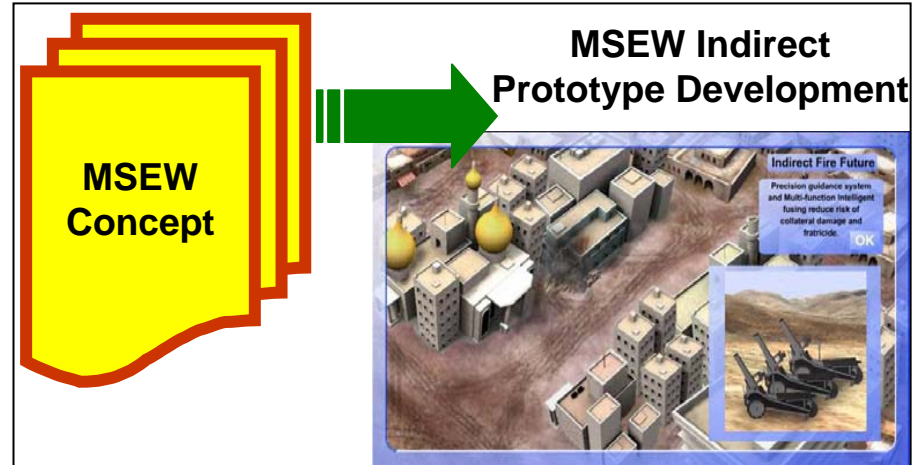
This will be achieved by the following:

- Modeling & Simulation
- Weapon System Effectiveness Analysis
- Analysis of Alternatives
- Optimum aiming analysis
- Campaign analysis – Weapon performance estimates

TRL - Knowledge Products

## Planned Demos/Deliverables/Transitions

- Transition 4th Quarter FY 07 to MCSC
- Deliverables will also be used to refine the approach to the Indirect Prototype product
- Deliverables:
  - Analysis of Alternatives
  - Weapon System Effectiveness Analysis
  - Optimum aiming analysis
  - Campaign analysis – Weapon performance estimates



## Warfighting Payoff:

### • Supports Sea Strike Pillar

- Provides the capability to **precisely engage targets** with a weapon **proportionate to the desired effects** when targeting and engaging urban and distributed threats.
- Provide enhanced scalable Indirect fires support to elements of a NEF operating in littoral and distributed operational environments.

ECL Gap Addressed: Fires – 2.A.2.A.1 “Developing a scalable yield weapon, which can be employed from all organic MAGTF fire support assets and platforms.”



# Product 2: MSEW Indirect Prototype

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Product Description: This effort will design and develop variable effects warhead for use by an indirect fire weapon system, making supporting fires more responsive and effective in urban terrain.

- Modular multi-application intelligent fuzing
- MEMS technology Precision Guidance technology
- Variable output energetic materials & fragmentation management.
- Builds on the MSEW Concept Development

TRL at Start: 3

TRL at Transition: 6



## Planned Demos/Deliverables/Transitions

- Demonstration 4th Quarter FY 09
- Transition 4th Quarter FY09
- Demonstration 3rd Quarter FY11
- Transition 4th Quarter FY11

## Warfighting Payoff:

### • Supports Sea Strike Pillar

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## ECL Gap Addressed:

**Fires – 2.A.2.A.1 “Developing a scalable yield weapon, which can be employed from all organic MAGTF fire support assets and platforms.”**





# Technologies of Interest

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- **Advanced Modeling & Simulation**
  - **Weapon System Effectiveness Analyses**
  - **Analysis of Alternatives**
  - **Aim-Point Optimization Analyses**
  - **Campaign Analyses – Weapon Performance Estimates**
- **Advanced Technology**
  - **Variable output energetic materials**
  - **Fragmentation management**
  - **MEMS Precision Guidance Technology**
  - **Modular multi-application intelligent fuzing**



# How Industry Can Help

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- Submit abstracts describing related work you have been or are involved with
- Offer approaches to help reduce program risk
- Watch for published announcements such as sources sought and BAAs

**Product Manager**

**Vickie Williams, Fires Program Officer**

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